MANGO: A WEBSITE FOR MANGO CULTIVATION AND MARKETING

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This Report Presented in Partial Fulfillment of the Requirements for the Degree of

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APPROVAL

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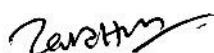Faculty of Science & Information Technology
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We hereby declare that, this project has been done by us under the supervision of Ahmed Al Marouf, Lecturer, Department of CSE Daffodil International University. We also declare that neither this project nor any part of this project has been submitted elsewhere for award of any degree or diploma.

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ABSTRACT

In today's world, internet has become a part of our life. We visit several website daily for several purpose for entertainment, knowledge, marketing and other purposes. Without internet our daily life is incomplete. For this, we want to make something in web which can help people. Our project name is Mango: cultivation and marketing. This is a web base project deals in mango farming and cultivation. The main purpose of our project is to help people to solve the problems while cultivating mangoes. One of the major part of our project is to provide news about mango for farmers and mango lover. Also, people can buy fresh mango from this site. We used PHP as a programming language. For design we use CSS and bootstrap. For database we use MySQL. This site is very user friendly. After finishing all the task and test process, this site proved to be working effectively.

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CHAPTER 1

Introduction

1.1 Introduction:

We want to make a web base site for mango cultivation and marketing. By which user can buy fresh mango, farmer can know how to prevent mango diseases and how to cultivate the mangoes etc.

1.2 Motivation of work:

Now a day everything is dependent on modern technology. People live in urban area are more interested in online rather than in person. Also, the farmer does not get the benefit of this. Most of the village farmer do not know how to prevent the disease of mango tree and how to grow more mangoes. We want to make an android app by which mango farmer can know how to cultivate mangoes more scientifically and how to prevent the diseases of mangoes. This app will help them how to grow more by using modern technology. In city life people want to grow mango in their roof, they can buy it through this app easily. Also in cities the mango is not comical free, the app offer the users chemical free mangoes. We believe that our app will have a significant impact on the mango farmer as they can know the expert opinions, how to use medicine etc. Also it is helpful for the city people as can buy formalin free mangoes and small mango tree.

1.3 Objectives:

- Develop a website for mango lovers and farmers, by which they can get all short of information about mango and mango farming.
- People can know about the price of mango, diseases of mango trees, process of planting mango trees, articles about mango.
- User can post their problem, and other users can answer them if they have any solution.

- Only register people can post a problem, without registration only some features are available
- Provide fresh mango to the mango lovers and help the mango farmers by provide information.
- Let people know about the information of mango tress such as leaves of mango.

1.4 Expected outcome:

The purpose of the project is to develop a site that will help the peoples who loves mango and grow mangoes (they can be farmers or people live in city areas). By using this site users can post their problems and buy mango So that they do not need to go to a mango specialist for further information in person. They can do it from their smart phone or computer. Also they can read articles about mango from here. Rather, for rooftop farming people can buy mango tree from here.

1.5 Report layout

Chapter 1: Introduction

In this chapter we have discussed about the introduction, motivation, objectives and expected outcome of the project. Later followed by the report layout.

Chapter 2: Background

We discuss about the background circumstances of our project. We also talk about the related works, comparison to other candidate systems, the scope of the problem and challenges of the project.

Chapter 3: Requirement Specification

This chapter is all about the requirements like business process modeling, the requirement collection and analysis, the use case model of the project and their description, the logical data model and the design requirements.

Chapter 4: Design Specification

In this chapter all the designs of the project. Front-end design, back-end design, interaction design and UX and the implementation requirements

Chapter 5: Implementation and Testing

This chapter contains the implementation of database, front-end designs, interactions, test implementation and the test results of the project.

Chapter 6: Conclusion and Future Scope

We discussed about the conclusion and the scope for further developments which pretty much derive about the project.

Chapter: 2

Background

2.1 Introduction:

Mango is the most popular fruit in Bangladesh. But nowadays people are being afraid to buy mangoes from market because of Chemical. Chemical free mangoes are almost rare in today. Most of the mangoes are come from Rajshahi and Chapainababgang. While travelling this long distance and stored in the shop, at least three or four days are passed by. So if the businessman does not use chemical most of the mangoes became rotten. So they use chemical and the quantity is more than the desired quantity.

Also farmer faces so many problem while cultivating and marketing mangoes. There are fog and Attack of insect during the last of winter when bud comes. And the type of attack is not same all of the time. So the farmers cannot prevent them and face a great loses every year. Beside that some people want to grow mangoes in rooftop. But there are some criteria behind that. As like sunlight, quantity of organic fertilizer etc. So they need a guideline to do that.

Sometimes people want to know the shapes, size or visual information of leaves. We want to make a database of leaves where leaves of mangoes are stored. So that people can know the visual information.

We want to make a website and app for mango cultivation and marketing. By which user can buy fresh mango, farmer can know how to prevent mango diseases and how to cultivate the mangoes etc.

This chapter describes about the similar works and discus about the criteria which make the site unique from other similar sites.

2.2 Related Works:

There are some almost similar website and app available in the web and play store. But there are some differences, which will make our project unique.

We can mention the name of agic agro. It is a nursery base online site. It provides all types of tree. They also serve mango tree but they do not deal with ripe mango. They just provide mango tree, and they do not offer any expert suggestion specifically on mangoes. Another one is Agricultural Evolution. Cultivation, problems in mango farming is described in here. Also there are some foreign sites about mango as Mango farm, Asia farming etc

Mango is an android app available in play store. But it only provides images of mango. This is not enough to grow mango or prevent diseases.

2.3 Comparative studies:

1. "Agic agro" only deal with serve trees and they serve all type of tree not only mango. So there is lack of information about mangoes and there is no place for expert advice. Further the important one provide ripe mango is absent in here.
2. In our system there are two type of log in. One for admin and another for user. The user can be mango farmer, mango lover, experts etc.
3. In the part of query farmer and mango lover can post there query and expert gives their opinion against that. Farmer can able to take a picture of the affected mango or leaves and upload in the query section that will help the experts to understand the problem and solving the problem.
4. The foreign sites provide information similar to their nature. So the manner of insect and quantity of fertilizer should not same with our nature. But our system deals with our nature so it give a better performance.
5. Mango site only provide images of mango but our system will provide all necessary information about mangoes.

2.4 Scope of the problem:

1. It is a website and android app. So if the user does not have internet connection they cannot visit the site. As well as without having an android phone user cannot use the android app.

2. When a user orders for mango, how the payment method will be? Do they pay in hand or any online method?

3. How the expert advices add in the desired section? Admin add that manually or expert add that by web application.

4. If courier service is unavailable in the desired area how the mangoes will be send?

2.5 Challenges:

1. The main barrier is device barrier. Because most of the farmer does not have any android phone and they do not able to use the internet.

2. Reach ability is the second problem. Because if farmer do not know about the app they cannot get benefit from this.

3. It is not an easy task to collect the picture of mangoes. Because, there are several species of mango tree and all species are not available in same places.

4. Make a suitable database which store the information and give security.

CHAPTER 3

Requirement Specification

3.1: Business Process Model

The term business process model is the noun form of Business Process Modelling, and refers to a structural representation, description or diagram, which defines a specified flow of activities in a particular business or institution. We define our business process model using data flow diagram. It describes the process how the data to be processed in our system. In the following figure 3.1 we draw a level-1 data flow diagram, which show the process of our system.
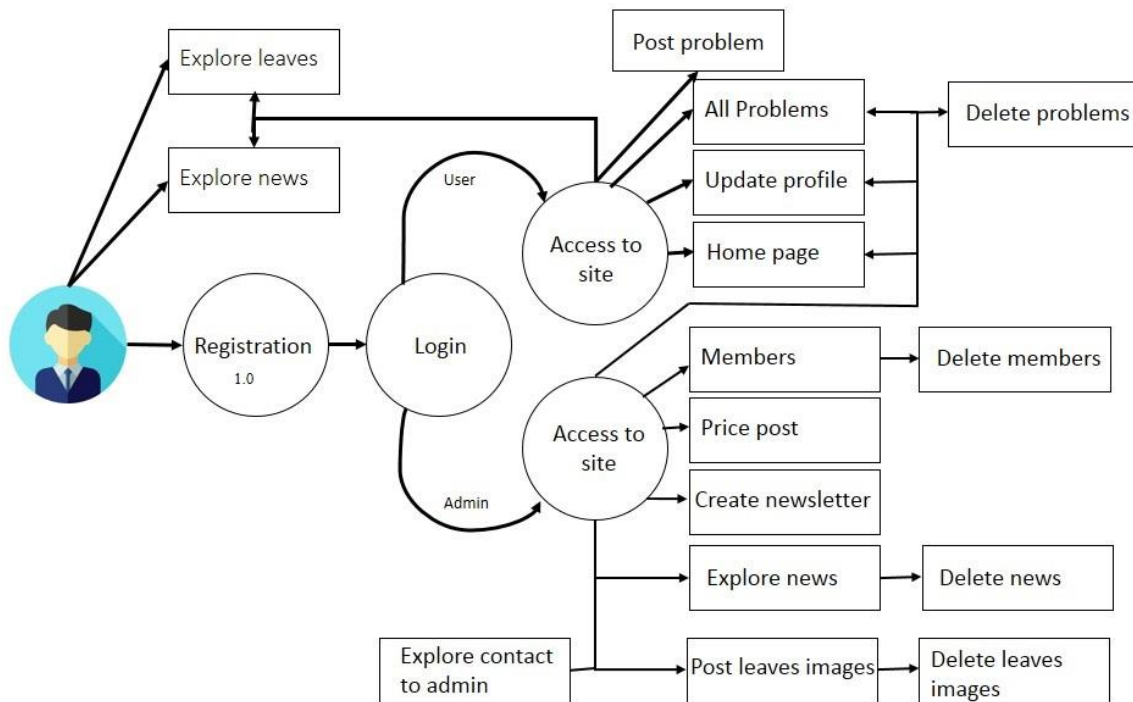

Fig 3.1: Business process model

3.2: Requirement Collection and Analysis

Requirement analysis, also called as requirement engineering. It is an important aspect in project analysis. The web application should be simple, informative and easy to use. In our project all the information and sections are easy to use as example post a problem. In this section there are two types of requirements needed, first one is the functional requirement and the other one is nonfunctional requirement. Functional requirements are the activities that's the site can easily

perform. And, nonfunctional requirements define the personality of the site, which results the site that is how much efficient, performance issues of the site and many more.

3.2.1 Functional Requirement

In our system post price section, update profile, create newsletter are some functional requirements. In this section only confined people can access.

3.2.2 Non- Functional Requirement

Nonfunctional requirements are those criteria which are used to compare a system. It describes how a system inferred to be. Visualization and design should be gorgeous to look at, for better user experience.

3.3 Use case modelling and description

Use case is a diagram to show the design specification. It is used to identify, clarify and organize system information. It helps the client to understand the functionality of the system. Fig 3.2 show the use case diagram of the system.
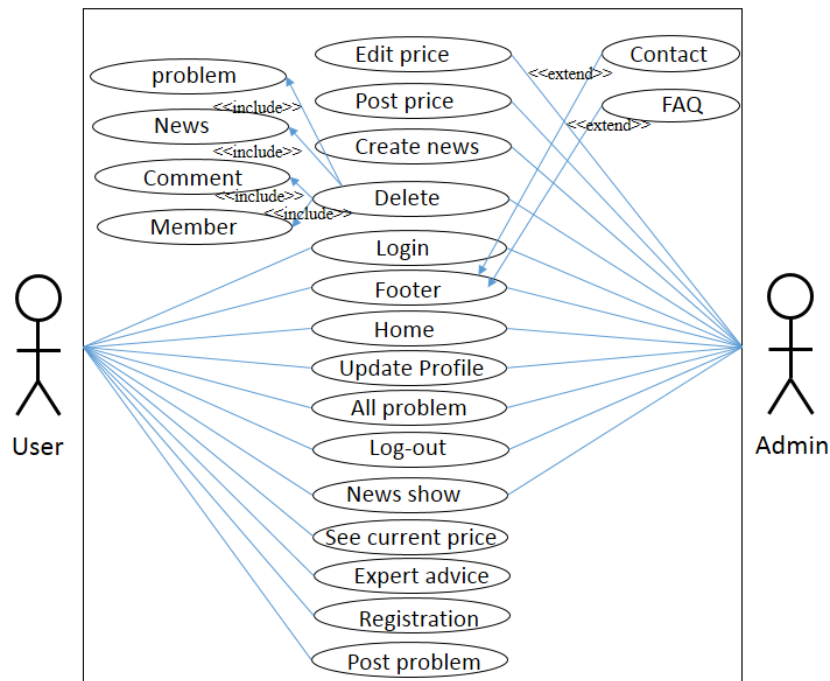

Fig 3.2: Use case diagram

Table 3.1: Use case information of Registration:

Use case #01	Registration
Primary actor	User
Secondary actor	Null
Pre-condition	Null
Scenario	- Enter unique username - Enter valid email address - Fill up the fields properly
Post-condition	Registration successful or Un successful

Table 3.2: Use case information of Login:

Use case #02	Login
Primary actor	Admin
Secondary actor	User
Pre-condition	Registered in the database
Scenario	- Enter valid username - Enter valid password
Post-condition	Login successful or failed

Table 3.3: Use case information of Footer:

Use case #03	Footer
Primary actor	Null
Secondary actor	Admin, user
Pre-condition	Null
Scenario	- FAQ - Contact admin - About site
Post-condition	View info properly

Table 3.4: Use case information of Home:

Use case #04	Home
Primary actor	User
Secondary actor	Admin
Pre-condition	Login
Scenario	Show the basic body of the site, including all necessary tabs.
Post-condition	View the data according to the selection of the user/admin

Table 3.5: Use case information of Update Profile:

Use case #05	Update Profile
Primary actor	Admin
Secondary actor	User
Pre-condition	Login
Scenario	Update information.
Post-condition	Set the updated information into the database.

Table 3.6: Use case information of all problem:

Use case #06	All problem
Primary actor	Admin
Secondary actor	User
Pre-condition	Login
Scenario	Show the list of the problems
Post-condition	Admin can delete a problem and user can comment against the problems and read the previous comments.

Table 3.7: Use case information of Log-out:

Use case #07	Log-out
Primary actor	Admin
Secondary actor	User
Pre-condition	Login
Scenario	Logout from the system.
Post-condition	Redirect to the login page.

Table 3.8: Use case information of News show:

Use case #08	News show
Primary actor	Admin, user
Secondary actor	Null
Pre-condition	Null
Scenario	Show the news and sections for category
Post-condition	Display the newsletter in organize way successfully.

Table 3.9: Use case information of See current price:

Use case #09	See current price
Primary actor	User
Secondary actor	Null
Pre-condition	Login
Scenario	Display the prices of mangoes.
Post-condition	View data successfully.

Table 3.10: Use case information of Expert advice:

Use case #10	Expert advice
Primary actor	User
Secondary actor	Null
Pre-condition	Null
Scenario	Advices of the Experts
Post-condition	View data successfully.

Table 3.11: Use case information of Post problem:

Use case #11	Post problem
Primary actor	User
Secondary actor	Null
Pre-condition	Login
Scenario	Post a problem by filling up the filed
Post-condition	Post problem successfully or failed.

Table 3.12: Use case information of Edit price:

Use case #12	Edit price
Primary actor	Admin
Secondary actor	Null
Pre-condition	Login as a admin
Scenario	• Set a new price • Post the price
Post-condition	Edit successful or failed

Table 3.13: Use case information of Post price:

Use case #13	Post price
Primary actor	Admin
Secondary actor	Null
Pre-condition	Login as a admin
Scenario	• Enter the name of the mango • Set a price • Upload an image
Post-condition	Created successful or failed

Table 3.14: Use case information of Create news:

Use case #14	Create news
Primary actor	Admin
Secondary actor	Null
Pre-condition	Login as a admin
Scenario	• Give a title • Brief discussion of news • Set an image
Post-condition	Created successful or failed

Table 3.15: Use case information of Delete:

Use case #15	Delete
Primary actor	Admin
Secondary actor	Null
Pre-condition	Login as a admin
Scenario	• Delete an user • Delete news • Delete a problem
Post-condition	Deleted successful or failed

3.4 Logical Data Model

Logical data model show the structure of the database in an organize way. It gives the complete

Topic

T_id	Int(10)
Topic_ name	varchar(50)
content	varchar(50)
Topic_creator(fk)	varchar(50)
date	date

Images

Id	Int(11)
Image	varchar(200)
Image text	text
price	int(10)
available	varchar(10)

User2

Id	Int(10)
Full name	varchar(50)
Username	varchar(50)
Password	varchar(50)
Specialist	varchar(50)
E-Mail	varchar(50)
Qualification	varchar(50)
Gender	varchar(50)

News

Id	Int(10)
Published by(fk)	varchar(200)
header	varchar(200)
content	varchar(60000)
image	varchar(200)
credit	varchar(20)
Genre	varchar(100)
date	varchar(20)

Comment

Id	Int(10)
Comment	varchar(50000)
Date time	varchar(30)
author	varchar(50)
T_id(fk)	Int(10)

Fig 3.4.1: Logical data model

concept of the database. As a database we use MySQL. The following figure show the model of the database.

contact

id	int(10)
name	varchar(30)
email	varchar(30)
contact	varchar(20000)

leaves

id	int(10)
name	varchar(20)
leaves	varchar(50000)
leaves2	varchar(10000)
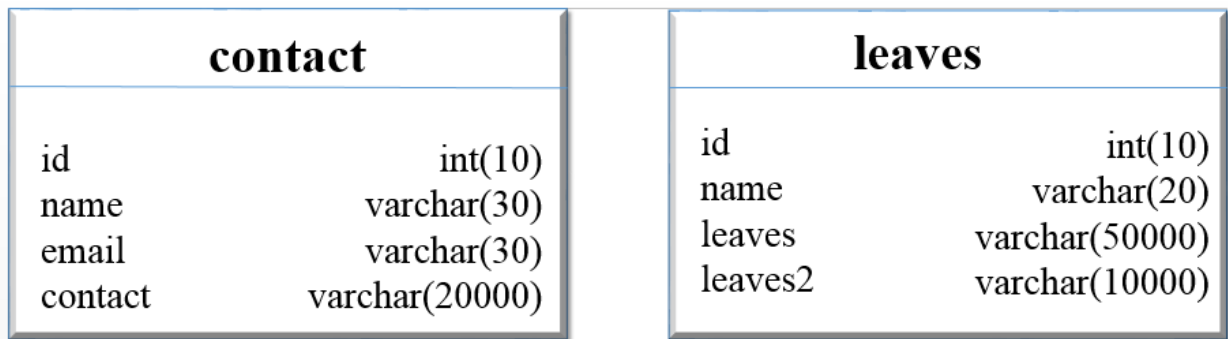
Fig 3.4.2: Logical data model

3.4 Design requirements

An eye catching design always attract people. From a set of design people always prefer that design, which looks good. The color combination reflects the appetite and attitude of the organization. It can capture the attention of the users. We make the system organized so that users can easily find the sections.

- There are login and registration page for users.

- In our system we design an index page, where without login user can get information
- We design post price and create newsletter form for admin.
- We have post problem and commenting section.
- Admin can delete a problem and user.
- User can read the opinion of the experts.

CHAPTER 4
Design specifications

4.1 Front end design

In a system front design is that part which is visual to the user. It is also known as client-site development. In this part user use the system. Front end design is one of the most important part. Because, introduction and all other necessaries are appear here. It is significant to make an attractive front end design for the users of the system. We tried to make our site as simple as possible. But, we bear in mind it should be well decorated and offer a good look. Front end design of our site are as follows:

Fig 4.1 shows the initial state of our site. In this section user can read out the news from the news section.
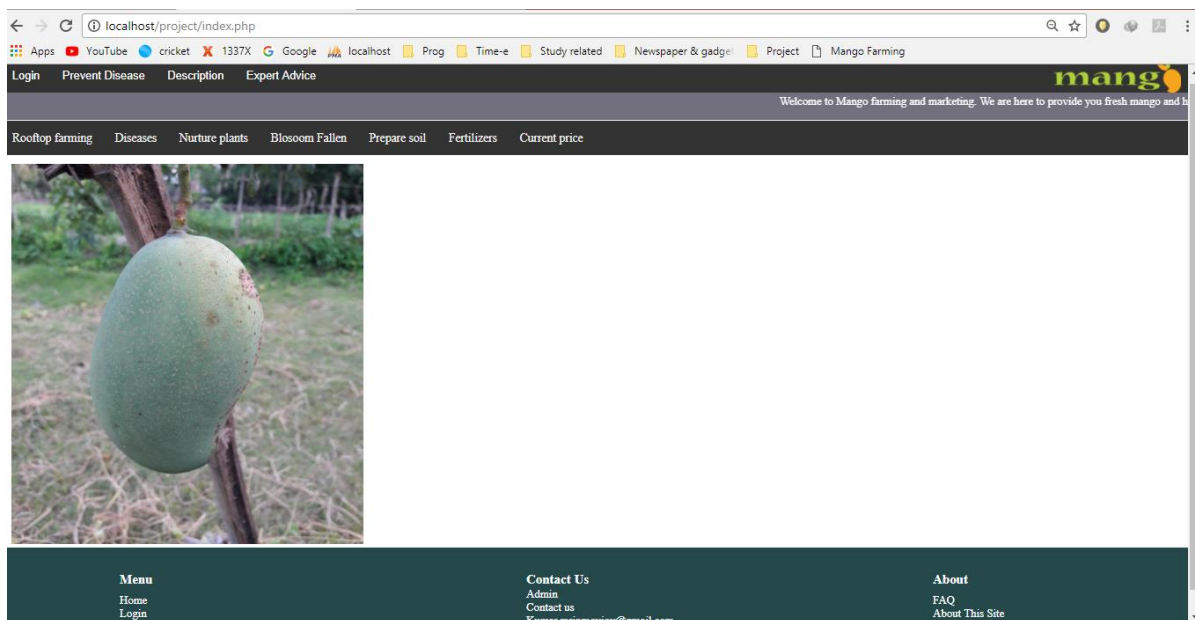
Fig 4.1: Initial state

Fig 4.2 shows the register and login process. If anyone want to post a problem he/she must be registered. In this section all section are required. If password length less than 6 character or greater than 40 character it show an error message. Rather if password and confirm password

does not match it show an error message too. Also user should provide a valid email address. If all the field filled properly then the system complete the registration. In login section user need to provide his valid username and password. If the username and password match then the system allow the user to login into the system
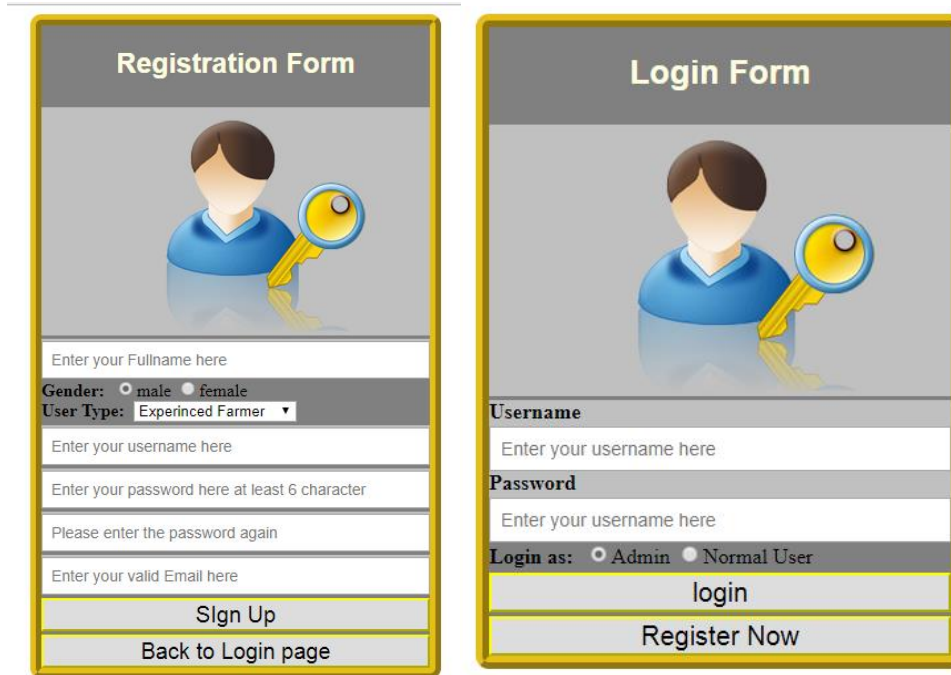
Fig 4.2: Registration and login

Fig 4.3.1 and 4.3.2 shows the homepage for admin and user respectively. There are some
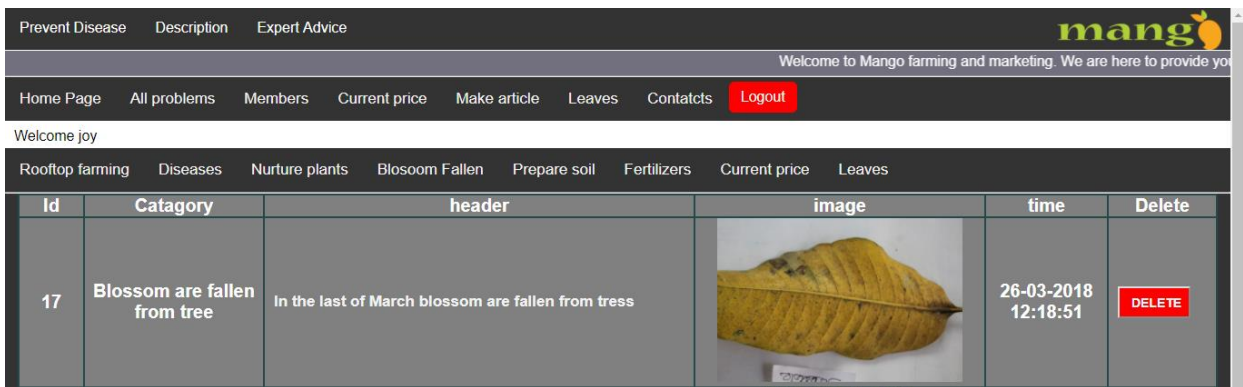
Fig 4.3.1: Admin homepage

different lay out for admin and user. Admin has Home Page, All problems, Members, Update profile, Current price posting, Make an article and logout section. Update profile, Current price

posting and Make an article layouts are not available for the users. Both admin and user can see the news section here but delete button is only visible to the admins.
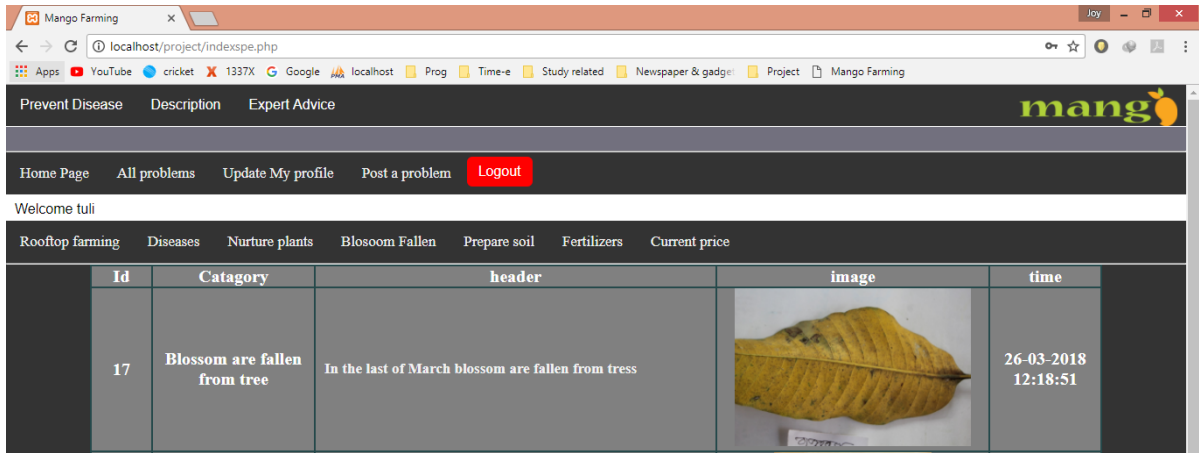
Fig 4.3.2: User homepage

Fig 4.4.1 shows the all problem section for admin and fig 4.4.2 shows the section for user respectively. Delete button is available only for admin not for users. By clicking the name of the problem user can see the specific problem.

ID	Name of the Problem	Creator	Date	Delete
20	I am here to serve you	tuli	2018-03-13	DELETE
21	Scope are not available	tuli	2018-03-26	DELETE

Fig 4.4.1: All problem section for admin

ID	Name of the Problem	Creator	Date
20	I am here to serve you	tuli	2018-03-13
21	Scope are not available	tuli	2018-03-26

Fig 4.4.2: All problem section for user

Fig 4.5 contains the information of the users. If user violate any policies admin can delete the specific user. Information of the users appear here. This lay out only visible to the admins.

Fig 4.5: Members

In figure 5.6 admin or user can update their profile information.

Fig 4.6: Update profile

In fig 4.7 admin can post the price of mango by filling up the required fields. While posting the price admin cannot add a duplicate name. If he want to do that the system show an error message. All information of post price are. Admin can delete contents from here.

Fig 4.7: Current price posting

In Fig 4.8 admin can post a newsletter. There are fields named title, description, author name, category and select image. Without author section all section is mandatory. Title

Fig 4.8: Post news

should contain at least 10 and highest 60 characters. After fill out the field properly admin can post the newsletter.

Fig 4.9 shows the commenting section. In here user can comment against a problem. He comments are appear below of the comment box and it show the author of the comment is and when the comment is created.

Fig 4.9: Comment section

In fig 4.10 user can pots their problems. There are two sections, name of the problem and description of the problem.

Fig 4.10: Post problem

Fig 4.11 show a table where the information of contact to admin is stored.

ID	Name	Email	Message
3	joy	k@gmail.com	I am facing a problem to reach the desire goal and here is the replica.

Fig 4.11: Contacts to admin information

Fig 4.12 show the section for leave posting. In this section admin can post the picture of leaves. Admin can see there instantly and he can delete any one from here.

Fig: 4.12 Post leaves section

Fig 4.13 show the current price of the mango for the users. This section do not require log in.

Fig 4.13: current price

Without login and while login user can see prices of mangoes.

This are the major parts of the site. Also there are some part such as news header and footer. In news section user can see the news by category. Footer contain some basic information about the site.
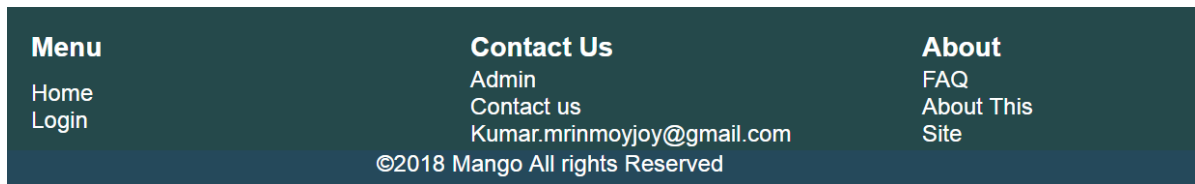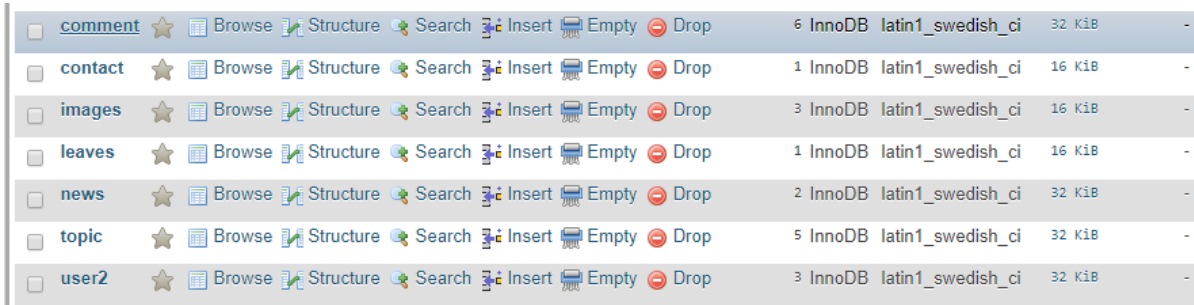

Fig 4.14: Footer

Fig 4.15: News header

4.2 Back end design

Back end design mainly contain the coding part which is invisible to the users. This part deal with programming language and database. We use PHP7 as programming language. For validation we use JavaScript in some scope. We use HTML 5 and CSS7 as GUI. For database we use MySQL. For sake of ease, just think about a database as a giant Excel spreadsheet on your computer, but your computer (server) is stored somewhere in database. So in our back-end work we put the database to store in the data we have through our whole process. Like user's information's, the result information's, ID's, passwords will save in our database respectively.

Fig 4.14 show the databases

Fig 4.14: List of databases

4.3 Interaction design and UX

One of the important part in our project is Interaction design with user experience (UX) design. In this part, we will describe what interaction design is, also express some models of interaction design, as well as briefly describe what an interaction designer usually we have in our project.
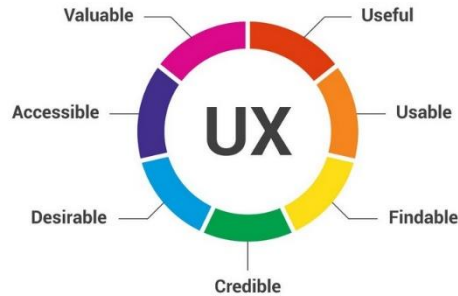

Fig 4.15: Interaction design and UX [10]

4.3.1 Home page interaction design and UX: We have designed so that the user can easily go from here. This is designed with CSS. The slider part of the image is also done by CSS. Rather there are some works of bootstrap.

4.3.2 Registration and login page interaction design and UX: For users there are register and login page. Admin have only login page. By the UX can choose the options like he wants to enter as authority or teacher and then they press the login button.

4.3.3 Dashboard page interaction design and UX: Dashboard design for admin and user. Both have separated column. In the other sections we designed the sites for good experiences that the

users will get through it. If user want to ask a problem he/she can fill the required field and submit it.

4.3.4 Post problems design and UX: The tab for make article, current price, leaves, contacts is designed in such a way, that the admin can easily access them. In this part, admin can make the new content for that section by filling up the fields.

4.4 Implementation

We need several tool to implement our project. Without those tools it is hard to complete the project. In this section we are giving a short discussion about those tools.

4.4.1 Apache: As we make our project as a web base project, so we need a server. We use Apache as a server in our computer.

4.4.2 MySQL: It is essential to store the data, so that we can use it later. For database we use MySQL. The data show in our system from MySQL.

4.4.3 Mozilla Firefox: To run the program we use Firefox. It offer a good look and it is easy to clear the case memory MySQL.

4.4.4 Notepad ++: For coding we use Notepad++. It is attractive for its gui and easy to use. It offer two window at a same time. It's find, replace, run, move to other view options helps us in various way.

CHAPTER 5

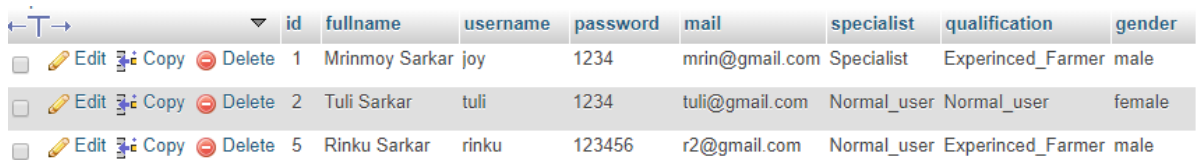# Implementation and testing

5.1 Implementation of database

In this chapter we are focusing how we implement data from databases. It is an important part of the project because, from here all the data set are implemented. The database store the data and return the data as our request. As we mention previously that we are using MySQL (PHP is combined with this) as our database. It is a database system used in web project and it run in a server. It is swift, reliable, easy to use, free to download and use and ideal for both large and small applications.

5.1.1 Database design: Data in MySQL database are stored in tables and the tables are under a database. The name of the table depends on their functionality or what data are dealing with. We use MySQLi instead of PDO. Both have advantages but we fell comfort to work with MySQLi.

Our main database name is logindb. Under this database there are several tables. The tables are given below with their functionalities.

Fig 5.1 show the table for Register and login. When a user register into the system his/her information stored in this database. Further while login the existing data are checked from database. In this table id is primary key.

	id	fullname	username	password	mail	specialist	qualification	gender
Edit Copy Delete	1	Mrinmoy Sarkar	joy	1234	mrin@gmail.com	Specialist	Experinced_Farmer	male
Edit Copy Delete	2	Tuli Sarkar	tuli	1234	tuli@gmail.com	Normal_user	Normal_user	female
Edit Copy Delete	5	Rinku Sarkar	rinku	123456	r2@gmail.com	Normal_user	Experinced_Farmer	male

Fig 5.1: Database table for login and register

Fig 5.2 shows the table for problems. When a user set a problem, the relevant data are stored in this table. In this table id is primary key and topic creator is foreign key, which is implemented from user 2 database. It show the name from user2 table.

Fig 5.2: Database table for problems

In fig 5.3 it represent the table for news. When admin post a news the relevant information stored in this table. In this table published by column is foreign key from user2 table and username column.

Fig 5.3: Database table for news

Fig 5.4 show the information of mango price information. When an admin post a mango price the information stored in this database. Here id is primary key.
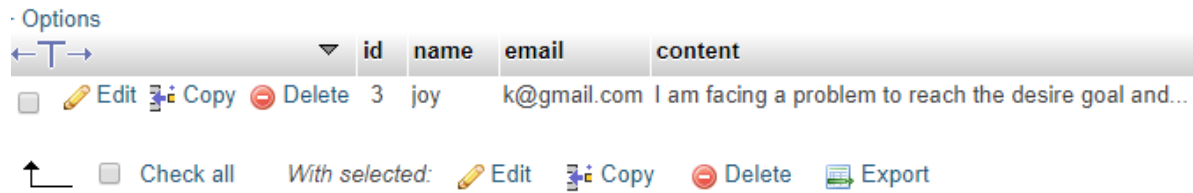

Fig 5.4: Database table for post price

In fig 5.5 it show the table of comments. When a user comment against a problem the data stored in this table. There are several column named id, comment, date-time, author, t_id etc. id is primary key, date time generate by the system and t_id is foreign key from user2 table username column. It show the name of the user.

Fig 5.5: Database table for commenting section

Fig 5.6 denotes the table contacts to admin. When a user of the site want to communicate admin the information he provide was stored in this table.
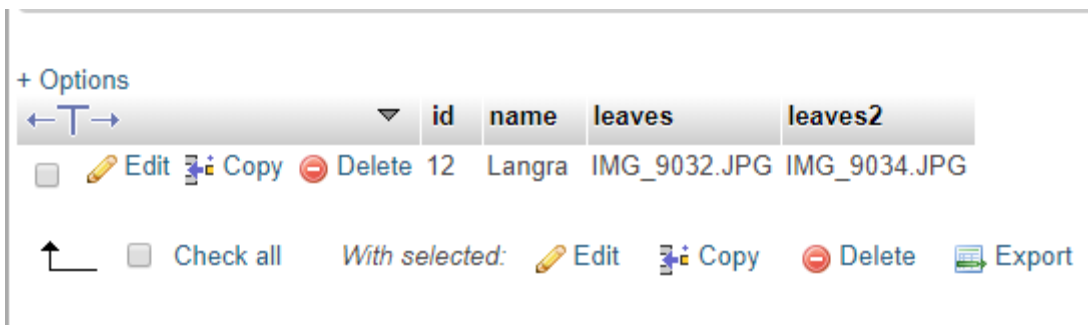

Fig 5.6: Database table for contact to admin

In Fig 5.7 it show the information of leaves. Actually it is a huge database with lots of images of mangoes. There are 4 columns in this table. Id, name, leaves, leaves2.

Fig 5.7: Database for leaves

5.2 Implementation of front end design

When we just implemented the project Front-end Design, there are some forms that comes from front-end coding. The challenge was more when we just implement the form from the code we write and there the perfection was the matters for us. In Front end implementation we use HTML, CSS, and JavaScript to code the website. The code we write runs inside the user's browser. The size of mobile phone and computer screen is totally different. Some user may use from computer and some from smartphone. So while designing we bear in mind this terms and make the site responsive. We use very simple UI design, for this if any user open any feature of our app, by simply looking on the tabs, they will understand what this feature do.

5.3 Implementation and Interaction

The successfulness of a system is totally depend on the interaction with the people who use this. Now a days, interaction is found each and every place. Interaction is a system which makes a system exoteric and attractive to a user. So, it is very important to make a system interactive. We develop some identical feature to interact our system with user (like – post problem). We implement our system with responsive UI for better user experience. For this, we use easy tab, text link and button. When we just work for implementation that means we are working for the website. When the user moves the mouse button on problems list that was the one of our interaction implementation for our system. The system is totally user friendly and user can easily interact with our system. Our site has a gorgeous look and attract the user in first look.

5.4 Testing Implementation

Testing implementation is a system by which we can test the system from various aspects. Such as, does it valid, what is the limitation, what will happen if the sates are blank, does login required and so many issues. We also tried to input our data in the databases and in case of that we got the success on that. We have tested the followings fields:

Table 5.1 Testing Implementation

Test case	Test case description	Step	Expected result	Actual result	Test case status pass/ fail	Tested on
1.Login(Admin)	To verify that login name and password is right or wrong from database.	Enter the username and password, select login as an admin and click login button.	Log in and show home page, or Password and username does not match, Please provide valid username and password.	Password and username match. You are logged in.	Pass	29th March 2018

2.Login (user)	To verify that login name and password is right or wrong.	Enter the username and password, select login as a normal user and click login button.	Log in and show home page. Or Password and username does not match, Please provide valid username and password. Any one of this two will be displayed.	Password and username match. You are logged in.	Pass	29th March 2018
3.Registration	Want to be registered user	Complete the registration form	User already exist try another username, Email is required, Invalid email, password and confirm password does not matched, password should contain at least 6 characters, User Registered! Go to login page for login.	User Registered ! Go to login page for login.	Pass	29th March 2018
4.Post price	Post the price of the mango	Enter the relevant information of mangoes to set the price of a mango.	Mango already exist try another name. Or, Information of mangoes successfully uploaded.	Information of mangoes successfully uploaded	Pass	29th March 2018
5.Post news	Post a newsletter about mango.	Enter unique mango name and fill all the field, author isn't mandatory.	Header should contain at least 10 and max 60 characters or News later created successfully	News later created successfully	Pass	29th March 2018

6.Post problem	If user face any problem he/she can post the specific problem.	Make a problem by filling out the required field.	Problem name should contain at least 10 and max 40 characters, Description should contain at least 40 and max 40000 characters or New problem created successfully.	New problem created successfully.	Pass	29th March 2018
7. Leaves	Post photos of leaves.	Admin can post the photos of mango leaves.	Name of the mango should be unique, Information of mangoes successfully uploaded	Information of mangoes successfully uploaded	Pass	29th March 2018
8.Contact admin	User can contact to admin.	User can communicate or send a message to admin.	Email is required, contact no is required, contact successful.	Successful	Pass	29th March 2018
9.Comment	Comment against a problem.	Commenting section against a problem.	Comment successful, fill out the field.	Comment successful.	Pass	29th March 2018
10.Logout	Click the logout button.	In order to logout from account.	Logout from the login page in order to destroy activity	Logout successful	Pass	29th March 2018

5.5 Test result and Reports

The purpose of test case is to represent the result of testing the system in a formal way. It contains the detail information when we do something or make a change. Report describe the operating condition and shows the test result with test objective. By judging the report we can make decision is the system ready to launch or not. There are several method for test case for testing web applications. Some of them are as follows:

- Performance
- Integration
- Usability
- Database
- Security
- User acceptance
- Performances
- System interoperability

In chapter 5.4 we have shown test case name, description, step, expected outcome, actual outcome, status, tested on etc. We perform usability test to check the user satisfaction. Usability testing check the following feature of the site.

- How easy to use the site

- How convenient is the application to the users.

So at the end we are able to carry out the results as the amenities of usability testing to the end of the users.

- Acceptable to the users.
- Easy to use and understand.
- Understandable UI for interaction.

CHAPTER 6

Conclusion and future scopes

6.1 Discussion and conclusion

For the mercy of almighty, we have successfully completed our project and documentation. After the long travel of thinking, discussion, designing, implementation we are in the last session and we point that instead of completion.

In The system will be effective those group of people who are living in urban areas, mango farmers, mango lovers, and rooftop mango farmer. The design of the site is very much user friendly, for that people having minimum knowledge in websites can easily use this.

The main reason behind the developing this site is there are many people in city life who are scared to buy mangoes from market because of formalin and carbide. Rather, there are people interested in rooftop farming. But, they do not have proper knowledge about rooftop farming. Also, farmers of rural area face several sort of problem. They do not know the exact solution. So, we try to solve this problem by technology. Our site is successfully tested and implemented. People who has a device to use the internet can use this site.

6.2 Limitations

We try to make our site as accurate as possible. But there are limitations in our site.

- ➢ As a web base project, our project need internet connection to run. In the village areas internet is not available to all till now.
- ➢ User need a smartphone to use the features. It is not usual that farmers have smartphone or device to use this.

6.3 Scope of future development

- ➢ By using live video streaming user can directly choose mangoes from garden.
- ➢ Make an individual system which able to reply the problem if the problem exist in the database.

- ➢ Chatting system between mango specialist and users.
- ➢ Add an individual section for the mango specialist, where they can make their own article and by approval of an admin it will be appear in the site.
- ➢ Add Bengali as an optional language.
- ➢ Make the security system more strong.
- ➢ Develop an android app, so that the mobile users can use it more easily and glibly.

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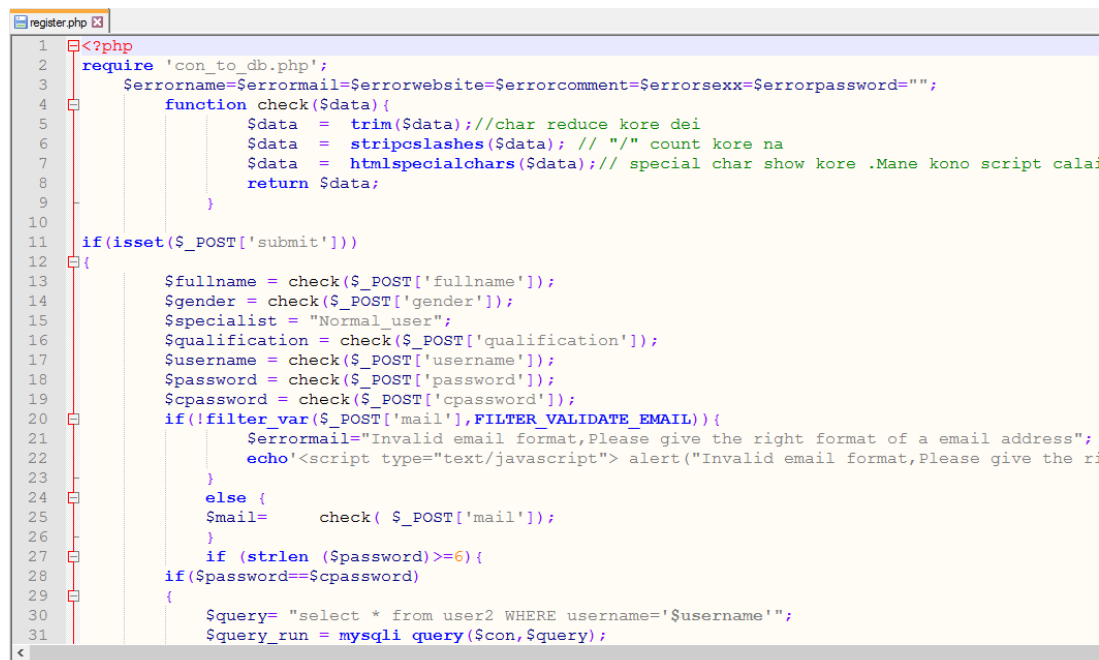
APPENDIX

Appendix A: Project Reflection

The intention of this appendix is about project reflection. From spring 2017 semester we started our journey to make this site. The main purpose of our site is to help the peoples related to mango. Also using our site user can know the price of mango and all types of information about mango. First of all we make a model to build the project. While modelling we consider some issues such as how the first look of the site, which can use it etc. After that we started our work. After hard work of around one year and spending a huge amount of time finally we are able to make it. This project is very helpful for those group of people who love mangoes. We believe that this project will be fruitful for mango lovers and farmers.

Appendix B: Related codes

The purpose of this appendix is to provide some important codes.

Fig B: 01 show the codes for register. It is the php code for register. For design we use css and for form we use html for this sate of code. Fig B: 02 and B: 03 shows the html and css respectevely.

Fig B: 01 – Codes for register

```
71  <div class="main">
72   <center class="font"> Registration Form</center>
73
74  <div class="img">
75   <img src="img/login.jpg">
76  </div>
77
78  <form action="register.php" method="post" class="myform">
79
80  <div class="username">
81   <input type="text" name="fullname" class="name" placeholder="Enter your Fullname here"
82  </div>
83
84   <label><b>Gender:&nbsp </b></label>
85   <input type="radio" class="gender" name="gender" value="male" checked required>male
86   <input type="radio" class="gender" name="gender" value="female">female
87
88
89   <br><label><b>User Type:&nbsp </b></label>
90  <select class="qualification" name="qualification">
91       <option value="Experinced_Farmer">Experinced Farmer</option>
92       <option value="Agriculture_specialist">Agriculture specialist</option>
93       <option value="Normal_Farmer">Normal Farmer</option>
94       <option value="Mango_Lover">Mango Lover</option>
95       <option value="Normal_user">Normal user</option>
96  </select>
97
98  <div class="username">
99   <input type="text" name="username" class="name" placeholder="Enter your username here "
100 </div>
```

Fig B: 02 – html for register

In fig B: 03 it represent the php code for problems section.

```
problems.php
1   <?php
2    session_start();
3    require 'con_to_db.php';
4
5   if(@$_SESSION["username"]){
6
7        if(isset($_GET['del_id'])){
8            $del_id= $_GET['del_id'];
9            $query="DELETE from topic where t_id='$del_id'";
10           if(mysqli_query($con,$query)){
11               header('Location:problems.php');
12           }
13       }
14       ?>
15
16   <!doctype html>
17  <html>
18  <head>
19       <title> Problems</title>
20       <meta name="viewport" content="width=device-width, initial-scale=1">
21       <link rel="stylesheet" type="text/css" href="stylesheet/problem.css">
22       <link rel="stylesheet" type="text/css" href="stylesheet/index.css">
23  </head>
24
25  <?php
26   include ("indexcon.php");
27       $type = $_SESSION['type'];
28            if ($type == "Specialist") {
29                include ("header.php");
30            }
31            else {
32                include ('header2.php');
```

Fig B: 03 codes for problems

```
login_register.css

1    .main{width:350px;float:center;border:10px ridge #E5BE1A;border-radius:10px;
2         background-color:gray;margin-left:auto;margin-right:auto;}
3    .font{font-family:helvetica;font-size:25px;font-weight:bold;margin-top:20px;color:lightyellow;}
4    .img{margin-top:25px;clear:both;background-color:silver;padding-left:70px;padding-top:10px;}
5    .username{background-color:silver;margin-top:3px;    }
6    .name{margin-top:2px;width:94.9%;padding:2%;font-size:14px;}
7    .login{height:30px;width:100%;text-align:center;font-size:20px;font-family:helvetica;
8         border:2px outset yellow;margin-top:3px;}
9    .logout{height:30px;width:100%;text-align:center;font-size:20px;font-family:helvetica;border:2px outset yellow;}
10   .logout2{margin-top:5px;background-color:red;}
11   .radio{color:red;background-color:gray;}
```
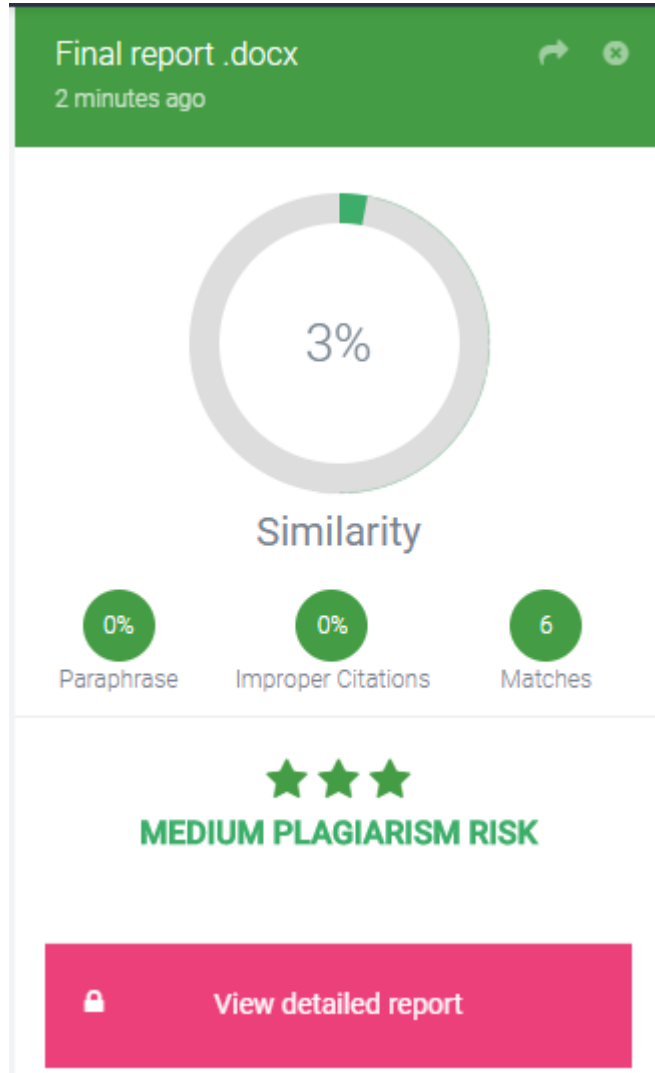
Fig B: 04 – CSS for register

Plagiarism Report

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Figure: Plagiarism report